

ABSTRACT

The present invention provides a high-efficiency absorption refrigerating machine which can recover heat from a heat source and can efficiently recover heat from an internal cycle. The absorption refrigerating machine includes an evaporator, an absorber (A), a condenser (C), a high-temperature regenerator (GH), a low-temperature regenerator (GL), a low-temperature solution heat exchanger (LX), and solution paths and refrigerant paths by which these units are connected. The absorption refrigerating machine further comprises two branch solution paths branched from a solution supply path through which a dilute solution is introduced from the absorber (A) to the high-temperature regenerator (GH). On one of the branch solution paths, there is disposed a drain heat exchanger (DX) operable to perform heat exchange between the dilute solution in the branch solution path and an exhaust heat source which has heated the high-temperature regenerator (GH). On the other of the branch solution paths, there are disposed a first high-temperature solution heat exchanger (HX1) and a second high-temperature solution heat exchanger (HX2) operable to perform heat exchange between the dilute solution in the branch solution path and a concentrated solution heated and concentrated in the high-temperature regenerator (GH). The absorption refrigerating machine is configured such that the dilute solution flows through the first high-temperature solution heat exchanger (HX1) and the second high-temperature solution heat exchanger (HX2) in this order, and the concentrated solution discharged from the high-temperature regenerator flows through the second high-temperature solution heat exchanger (HX2) and the first high-temperature solution heat exchanger (HX1) in this order.